



ATTORNEY'S DOCKET TAN-293
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:) Group Art Unit: 1623
)
TOMIYAMA; UEYAMA; YANAGIYA;) Examiner: Michael C. Henry
OHKURA)
)
Serial No. 09/925,537)
)
Filed: August 10, 2001)
)
For: **NON-MUCIN TYPE SYNTHETIC COMPOUNDS OR ITS CARRIER
CONJUGATED COMPOUNDS**

APPENDIX A

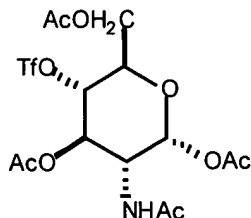
Please amend the specification as indicated according to the revision to 37 C.F.R. § 1.121 concerning a manner for making amendments to the specification.

Please replace the paragraph bridging pages 41 and 42 with the following new paragraph:

~~The preparation of 2-acetylamino-1,3,6-tri-O-acetyl-4-trifluoromethanesulfonyl-2-deoxy- α -D-glucopyranose~~

The preparation of 2-acetylamino-1,3,6-tri-O-acetyl-4-O-trifluoromethanesulfonyl-2-deoxy- α -D-glucopyranose

(compound 1a-5)

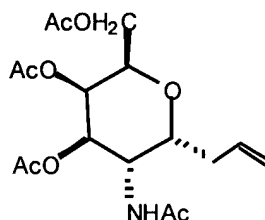


Please replace the paragraph on page 42, line 10, with the following new paragraph:

~~The preparation of 3-(2-acetyl-amino-3,4,6-tetra-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-propene~~

The preparation of 1-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-2-propene

(compound 1a-6)

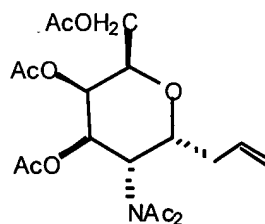


Please replace the paragraph on page 43, line 6, with the following new paragraph:

~~The preparation of 3-(2-diacetyl-amino-3,4,6-tetra-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-propene~~

The preparation of 1-(2-diacetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-2-propene

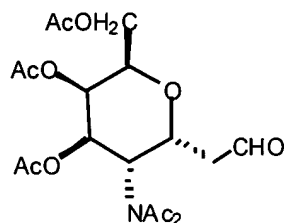
(compound 1a-9)



Please replace the paragraph bridging pages 43 and 44 with the following new paragraph:

~~The preparation of 3-(2-acetyl-amino-3,4,6-tetra-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-acetaldehyde~~

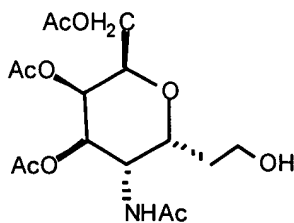
The preparation of 2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-acetaldehyde
(compound 1a-10)



Please replace the paragraph on page 44, line 2, with the following new paragraph:

~~The preparation of 3-(2-acetyl-amino-3,4,6-tetra-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-ethanol~~

The preparation of 2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-ethanol
(compound 1a-11)

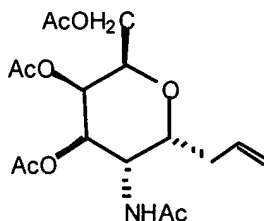


Please replace the paragraph on page 45, line 4, with the following new paragraph:

~~The preparation of 3-(2-acetylamino-3,4,6-tetra-O-acetyl-2-deoxy- α -D-glucopyranosyl)-1-propene~~

The preparation of 1-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-glucopyrano-1-yl)-2-propene

(compound 1b-2)

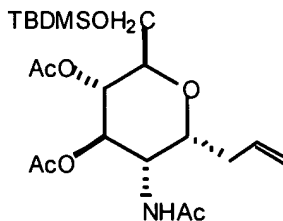


Please replace the paragraph on page 46, line 2, with the following new paragraph:

~~The preparation of 3-(2-acetylamino-3,4-di-O-acetyl-2-deoxy- α -D-glucopyranosyl)-1-propene~~

The preparation of 1-(2-acetylamino-3,4-di-O-acetyl-6-O-tert-butyltrimethylsilyl-2-deoxy- α -D-glucopyrano-1-yl)-2-propene

(compound 1b-4)

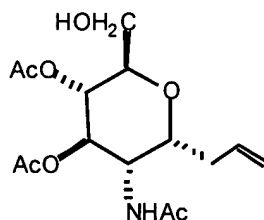


Please replace the paragraph bridging pages 46 and 47 with the following new paragraph:

~~The preparation of 3-(2-acetylamino-3,4-di-O-acetyl-2-deoxy- α -D-glucopyranosyl)-1-propene~~

The preparation of 1-(2-acetylamino-3,4-di-O-acetyl-2-deoxy- α -D-glucopyrano-1-yl)-2-propene

(compound 1b-6)

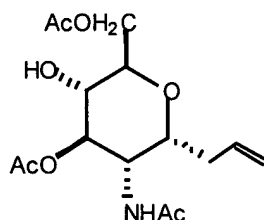


Please replace the paragraph on page 47, line 13, with the following new paragraph:

~~The preparation of 3-(2-acetylamino-3,6-di-O-acetyl-2-deoxy- α -D-glucopyranosyl)-1-propene~~

The preparation of 1-(2-acetylamino-3,6-di-O-acetyl-2-deoxy- α -D-glucopyrano-1-yl)-2-propene

(compound 1b-7)

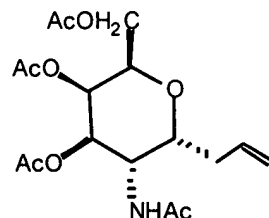


Please replace the paragraph bridging pages 48 and 49 with the following new paragraph:

~~The preparation of 3-(2-acetylamino-3,4,6-tetra-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-propene~~

The preparation of 1-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-2-propene

(compound 1a-8)

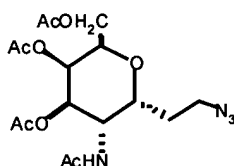


Please replace the paragraph on page 49, line 14, with the following new paragraph:

~~The preparation of 2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-ethylazide~~

The preparation of 2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-ethylazide

(compound 2-1a)

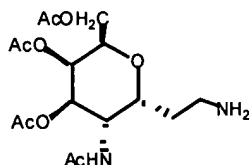


Please replace the paragraph on page 50, line 2, with the following new paragraph:

~~The preparation of 2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-ethylamine~~

The preparation of 2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-ethylamine

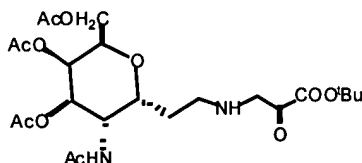
(compound 2-2a)



Please replace the paragraph on page 50, line 17, with the following new paragraph:

~~The preparation of t-butyl 2-((2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)amino)acetate~~

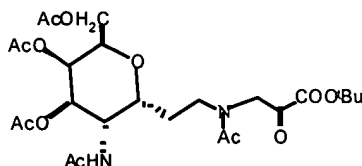
The preparation of tert-butyl 2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethylamino]acetate
(compound 2-3a)



Please replace the paragraph on page 51, line 9, with the following new paragraph:

~~The preparation of t-butyl 2-(N-(2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)acetamino)acetate~~

The preparation of tert-butyl 2-[N-acetyl-2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethylamino]acetate
(compound 2-4a)

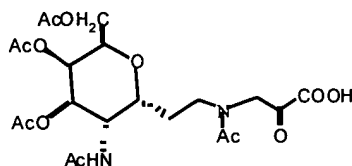


Please replace the paragraph bridging pages 51 and 52 with the following new paragraph:

~~The preparation of 2-(N-[2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galaetopyranosyl)ethyl]acetamino)acetic acid~~

The preparation of 2-[N-acetyl-2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethylamino]acetic acid

(compound 2-5a)

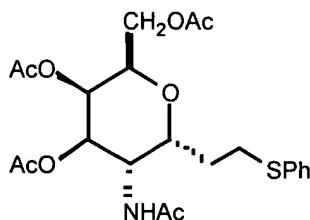


Please replace the paragraph on page 52, line 17, with the following new paragraph:

~~The preparation of 3-(2-acetyl-amino-3,4-tri-O-acetyl-2-deoxy- α -D-galaetopyranosyl)-1-phenylthioethane~~

The preparation of 2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-1-phenylthioethane

(compound 4-1)



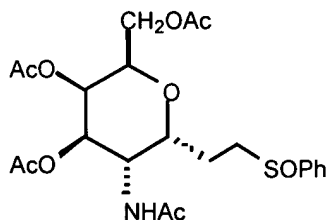
Please replace the paragraph on page 53, line 5, with the following new paragraph:

~~The preparation of 3-(2-acetyl-amino-3,4-tri-O-acetyl-2-deoxy- α -D-galaetopyranosyl)-1-phenylsulufenylethane~~

The preparation of 2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-

deoxy- α -D-galactopyrano-1-yl)-1-phenylsulufenylethane

(compound 4-2)

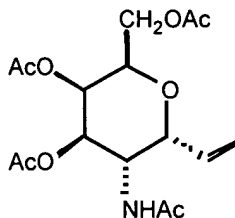


Please replace the paragraph on page 53, line 20, with the following new paragraph:

~~The preparation of 3-(2-acetylamino-3,4-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-vinylene~~

The preparation of (2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-vinylene

(compound 4-3)

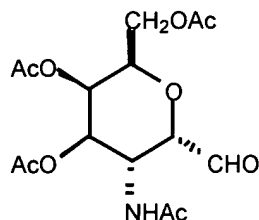


Please replace the paragraph on page 54, line 11, with the following new paragraph:

~~The preparation of 3-(2-acetylamino-3,4-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-carbaldehyde~~

The preparation of (2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranos-1-yl)-1-carbaldehyde

(compound 4-4)

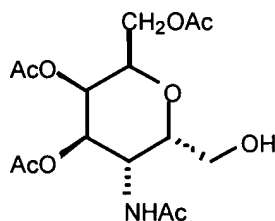


Please replace the paragraph bridging pages 54 and 55 with the following new paragraph:

~~The preparation of 3-(2-acetyl-3,4-tri-O-acetyl-2-deoxy-α-D-galactopyranosyl)-1-methanol~~

The preparation of (2-acetyl-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyrano-1-yl)-methanol

(compound 4-5)

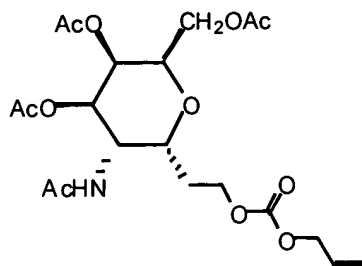


Please replace the paragraph on page 55, line 12, with the following new paragraph:

~~The preparation of 3-(2-acetyl-3,4,6-tetra-O-acetyl-2-deoxy-α-D-galactopyranosyl)-1-ethylvinyl-oxymethyl ether~~

The preparation of 2-(2-acetyl-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyrano-1-yl)-ethylvinyl-oxymethyl ether

(compound 5-1a)

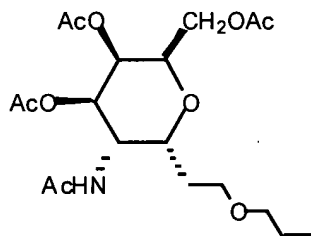


Please replace the paragraph on page 56, line 5, with the following new paragraph:

~~The preparation of 3-(2-acetamino-3,4,6-tetra-O-acetyl-2-deoxy-α-D-galactopyranosyl)-1-ethoxyprop-2-ene~~

The preparation of 1-[2-(2-acetylaminophenyl)-2-deoxy-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyranosyl]-2-propene

(compound 5-2a)

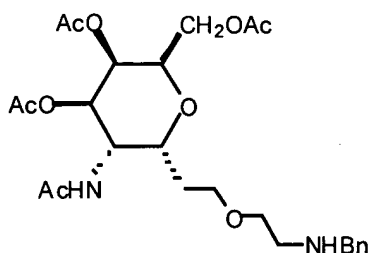


Please replace the paragraph on page 56, line 19, with the following new paragraph:

~~The preparation of 2-(2-acetylaminophenyl)-2-deoxy-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyranosyl)-1-[2-(benzylamino)ethoxy]ethane~~

The preparation of 1-[2-(2-acetylaminophenyl)-2-deoxy-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyranosyl]-2-propene

(compound 5-3a)

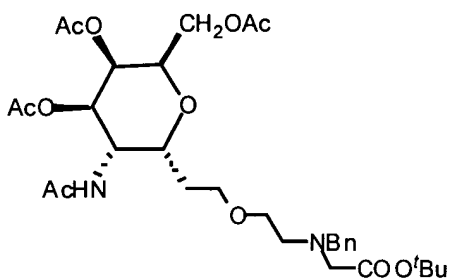


Please replace the paragraph on page 57, line 21, with the following new paragraph:

~~The preparation of t-butyl 2-[(2-{2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethoxy}ethyl)-benzylamino]acetate~~

The preparation of tert-butyl 2-{2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethoxy]-N-benzyl-ethylamino} acetate

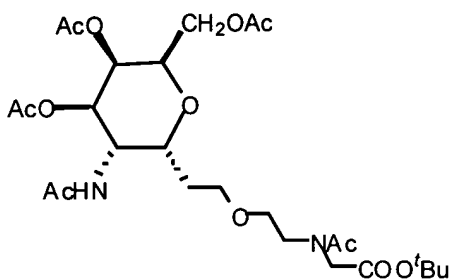
(compound 5-4a)



Please replace the paragraph on page 58, line 7, with the following new paragraph:

~~The preparation of t-butyl 2-[(2-{2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethoxy}ethyl)amino]acetate~~

The preparation of tert-butyl-2-{2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethoxy]ethylamino}acetate
(compound 5-5a)

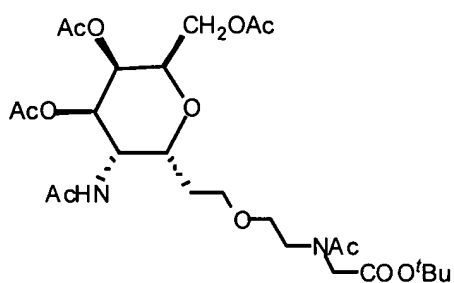


Please replace the paragraph bridging pages 58 and 59 with the following new paragraph:

~~The preparation of t-butyl 2-[(2-[2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethoxy]ethyl)-acetylamino]acetate~~

The preparation of tert-butyl 2-{2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethoxy]ethylamino}acetate

(compound 5-6a)

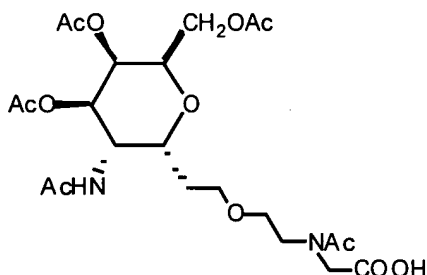


Please replace the paragraph on page 59, line 11, with the following new paragraph:

~~The preparation of 2-[N-(2-{2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethoxy}ethyl)benzylamino]acetic acid~~

The preparation of 2-{2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethoxy]-N-acetyl-ethylamino}acetic acid

(compound 5-7a)

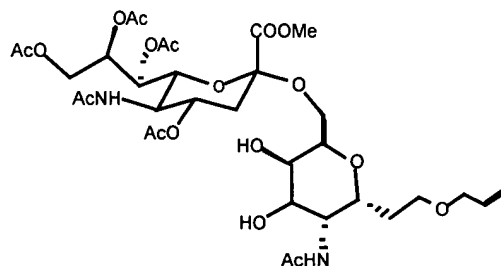


Please replace the paragraph on page 60, line 2, with the following new paragraph:

~~The preparation of O-(methyl 5-acetylamino-4,8,9-tetra-O-acetyl-3,5-dideoxy- β -D-glycero-D-galacto-2-nono pyranosynate)-(2-6)-2-(2-acetylamino-3,4-di-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-(prop-2-enyloxy)ethane~~

The preparation of 2-[O-(methyl 5-acetylamino-4,7,8,9-tetra-O-acetyl-3,5-dideoxy- β -D-glycero-D-galacto-2-nonulopyranoside)-(2-6)-(2-acetylamino-3,4-di-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)]-1-(2-propenyloxy)ethane

(compound 6-2a)

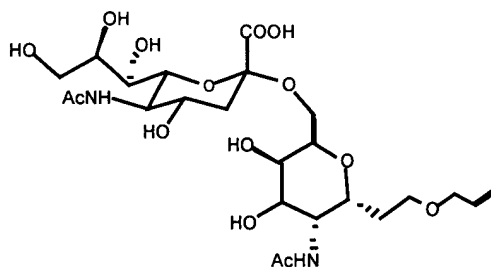


Please replace the paragraph bridging pages 60 and 61 with the following new paragraph:

~~The preparation of O-(methyl 5-acetylamino-3,5-dideoxy-β-D-glycero-D-galacto-2-nuno pyranosinate)-(2→6)-2-(2-acetylamino-2-deoxy-α-D-galactopyranosyl)-1-(prop-2-enyloxy)ethane~~

The preparation of 2-[O-(5-acetylamino-3,5-dideoxy-β-D-glycero-D-galacto-2-nonulopyranoside)-(2→6)-(2-acetylamino-2-deoxy-α-D-galactopyrano-1-yl)]-1-(2-propenyloxy)ethane

(compound 6-3a)

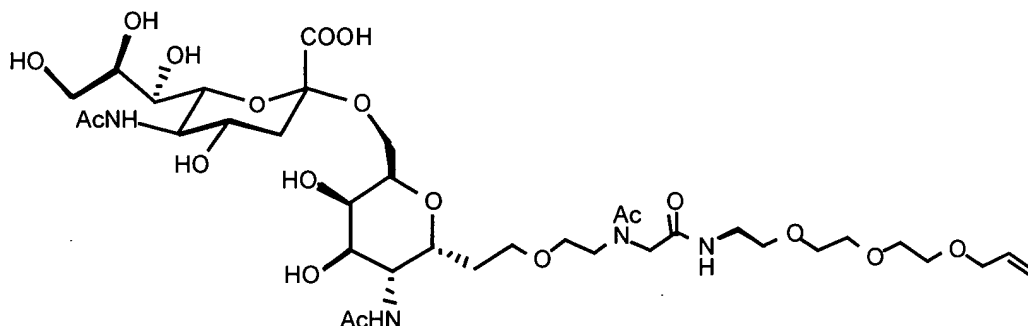


Please replace the paragraph on page 61, line 13, with the following new paragraph:

~~The preparation of O-(methyl 5-acetylamino-3,5-dideoxy-β-D-glycero-D-galacto-2-nonulopyranosinate)-(2→6)-2-[N-(2-{2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyranosyl]ethoxy}ethyl)acetylamino]-N-(2-{2-[2-(2-oxyethoxy)ethoxy]ethoxy}ethyl)acetamide~~

The preparation of 2-(2-{2-[5-acetylamino-3,5-dideoxy-β-D-glycero-D-galacto-2-nonulopyranoside)-(2→6)-(2-acetylamino-2-deoxy-α-D-galactopyrano-1-yl)]ethoxy}-N-acetyl-ethylamino)-N-(2-{2-[2-(2-propenyloxy)ethoxy]ethoxy}ethyl)acetamide

(6-3b)



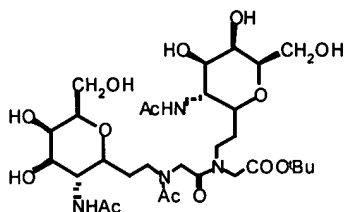
Please replace the paragraph bridging pages 63 and 64 with the following new paragraph:

~~The preparation of t-butyl 2-[N-(2-{2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyranosyl]ethyl}-2-[N-(2-{2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyranosyl]ethoxy}ethyl)acetylamino]acetate~~

The preparation of tert-butyl 2-{N-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyrano-1-yl)ethyl]-2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy-α-D-galactopyrano-1-yl)-N-

acetyl-ethylamino]acetyl-amino}acetate

(compound 8-3a)

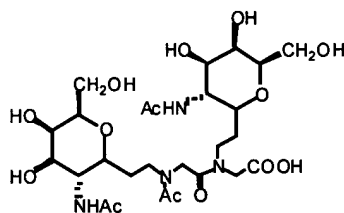


Please replace the paragraph on page 64, line 17, with the following new paragraph:

~~The preparation of 2-[N-(2-[2-[2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl] ethyl)-2-[N-(2-[2-[2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl] ethoxy) ethyl)-acetyl-amino] acetic acid~~

The preparation of 2-[N-[2-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethyl]-2-[N-(2-acetyl-amino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-N-acetyl-ethylamino]acetyl-amino}acetic acid

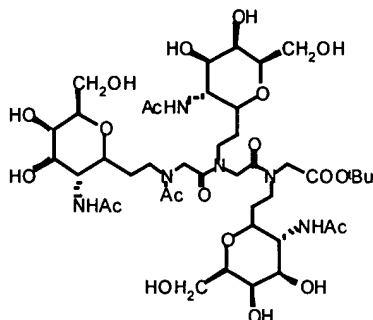
(compound 8-1b)



Please replace the paragraph on page 65, line 6, with the following new paragraph:

~~The preparation of t-butyl N-(2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)-2-(N-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)acetylamino)-N-((N-(2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)-N-((N-carbamoyl)methyl)carbamoyl)methyl)acetate~~

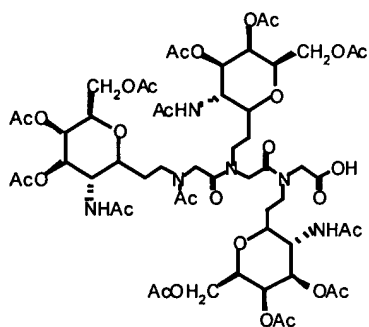
The preparation of tert-butyl 2-(2-(2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-N-acetylethylamino]-N-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethyl]acetylamino)-N-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethyl]acetylamino)acetate (compound 8-3b)



Please replace the paragraph bridging pages 65 and 66 with the following new paragraph:

~~The preparation of N-(2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)-2-(N-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)acetylamino)-N-((N-(2-[2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl]ethyl)-N-((N-carbamoyl)methyl)carbamoyl)methyl)acetic acid~~

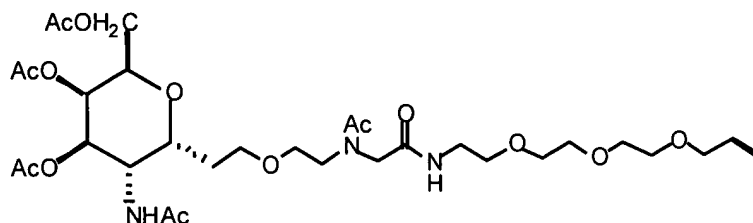
The preparation of 2-(2-{2-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-N-acetylamino]-N-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethyl]acetylamino}-N-[2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)ethyl]acetylamino)acetic acid
(compound 8-1c)



Please replace the paragraph on page 67, line 1, with the following new paragraph;

~~The preparation of 2-(2-Acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-(2-{N-[(N-{2-[2-(2-prop-2-enyloxyethoxy)ethoxy]ethyl}carbonyl)methyl]acetylamino}ethoxy)ethane~~

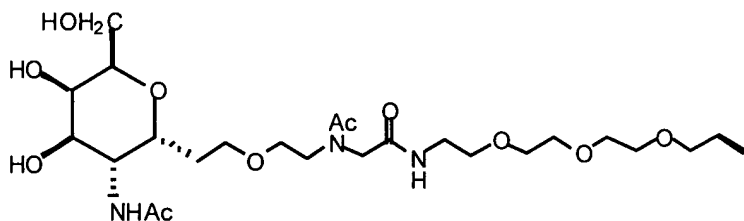
The preparation of 2-(2-Acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-1-(2-{N-[(N-{2-[2-(2-propenyloxy)ethoxy]ethoxy}ethyl)carbonylmethyl]acetylamino}ethoxy)ethane
(compound 8-4)



Please replace the paragraph on page 67, line 25, with the following new paragraph:

~~The preparation of 2-[N-(2-{2-[2-Acetylamino-2-deoxy- α -D-galactopyranosyl]-ethoxy}ethyl)-acetylamino]-N-[2-[2-(2-prop-2-oxyethoxy)-ethoxy]ethyl]acetamide~~

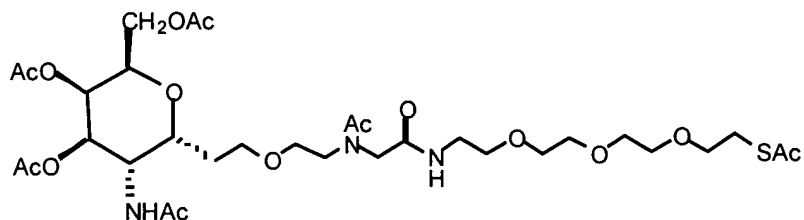
The preparation of 2-(2-acetylamino-2-deoxy- α -D-galactopyrano-1-yl)-1-[2-(N-{[N-(2-{2-[2-(2-propenyloxy)ethoxy]ethoxy}ethyl)carbamoyl]methyl}acetylamino)ethoxy]ethane
(compound 8-6)



Please replace the paragraph on page 69, line 11, with the following new paragraph:

~~The preparation of 2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyranosyl)-1-(2-[N-{[N-(2-[2-(3-acetylthiopropoxy)ethoxy]ethyl)carbamoyl]methyl}acetylamino]ethoxy)ethane~~

The preparation of 2-(2-acetylamino-3,4,6-tri-O-acetyl-2-deoxy- α -D-galactopyrano-1-yl)-1-[2-(N-{[N-(2-{2-[2-(3-acetylthiopropoxy)ethoxy]ethoxy}ethyl)carbamoyl]methyl}acetylamino)ethoxy]ethane



Please replace the paragraph bridging pages 69 and 70 with the following new paragraph:

~~The preparation of 2-[N-(2-{2-[2-acetylamino-2-deoxy- α -D-galactopyranosyl]-ethoxy}ethyl)-acetylamino]-N-(2-[2-(2-sulfenylpropoxy)ethoxy]ethyl)acetamide~~

The preparation of 2-(2-acetylamino-2-deoxy- α -D-galactopyrano-1-yl)-1-[2-(N-{[N-(2-{2-[2-(3-sulfenylpropoxy)ethoxy]ethoxy}ethyl)carbamoyl]methyl}acetylamino)ethoxy]ethane

